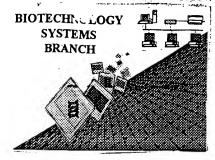
RAW SEQUENCE LISTING ERROR REPORT



0400

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/729,658

Source:

Date Processed by STIC: $\frac{2/12/2000}{}$

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin30help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address: http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

ERROR DETECTED SUGGESTED CORRECTION SERIAL NUMBER:

ATTN	NEW RULES CASES: P	LEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
1	Wrapped Nucleics	The number/text at the end of each line "wrapped" down to the next line.
·	*	This may occur if your file was retrieved in a word processor after creating it.
		Please adjust your right margin to .3, as this will prevent "wrapping".
2	Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line.
	• •	This may occur if your file was retrieved in a word processor after creating it.
		Please adjust your right margin to .3, as this will prevent "wrapping".
	•	
3	Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.
4	Misaligned Amino Acid	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs
4 ——	Numbering	between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
5	Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
J	Non-A3CII	Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
c	Variable Length	Sequence(s) contain n's or Xaa's which represented more than one residue.
6	Variable Length	As per the rules, each n or Xaa can only represent a single residue.
	-	Please present the maximum number of each residue having variable length and
		indicate in the (ix) feature section that some may be missing.
7	Patentla ver 20 "bus"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid
′ —	PatentIn ver. 2.0 "bug"	sequence(s) Normally, PatentIn would automatically generate this section from the
		previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section
		to the subsequent amino acid sequence. This applies primarily to the mandatory <220>-<223>
		sections for Artificial or Unknown sequences.
		to the standard places use the following format for each skinned sequence:
8	Skipped Sequences	Sequence(s) missing. If intentional, please use the following format for each skipped sequence:
	(OLD RULES)	(2) INFORMATION FOR SEQ ID NO:X: (i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
		(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
		This sequence is intentionally skipped
		Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
0	Chinand Consumana	Sequence(s) missing. If intentional, please use the following format for each skipped sequence.
9	Skipped Sequences	<210> sequence id number
1	(NEW RULES)	\$400> sequence id number
1		000
- (1		
10	Use of n's or Xaa's	Use of n's and/or Xaa's have been detected in the Sequence Listing.
	(NEW RULES)	Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
		In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
11	Use of <213>Organism	Sequence(s) are missing this mandatory field or its response.
	(NEW RULES)	
12	Use of <220>Feature	Sequence(s) are missing the <220>Feature and associated headings.
	(NEW RULES)	Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial" or "Unknown"
	••	Please explain source of genetic material in <220> to <223> section.
		(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
. 7	Paleotle ver 20 "bue"	Please do not use "Copy to Disk" function of Patentin version 2.0. This causes a corrupted
¹³ ——	Patentin ver. 2.0 "bug"	file; Tesalting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
	-; -* •	Instead, please use "File Manager" or any other means to copy file to floppy disk.
		manage production and the second seco

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/729,658

DATE: 12/12/2000 TIME: 12:07:55

Input Set : A:\55924.app

Output Set: N:\CRF3\12122000\1729658.raw

Does Not Comply Corrected Diskette Needed

3 ... 110> APPLICANT: Lonana et al. 5 -1295 TITLE OF INVENTION: Hypohydrotic ectodermal dysplasia genes and proteins 7 <130> FILE REFERENCE: 55924 9 <140> CURRENT APPLICATION NUMBER: US/09/729,658 10 <141> CURRENT FILING DATE: 2000-12-04 12 <150> PRIOR APPLICATION NUMBER: 09/342.681 13 - 151> PRIOR FILING DATE: 1999-06-29 15 - 150> PRIOR APPLICATION NUMBER: 60/092,279 16 - 151> PRIOR FILING DATE: 1998-07-09 18 <150> PRIOR APPLICATION NUMBER: 60/112,366 19 <151> PRIOR FILING DATE: 1998-12-15 21 +160> NUMBER OF SEQ ID NOS: 122 23 <170> SOFTWARE: Patentin Ver. 2.1 25 <210> SEQ 10 NO: 1 26 <211> BENGTH: 1574 27 <212> PYPE: DNA 28 <213> ORGANISM: Homo sapiens ₹0 < 220> FEATURE: 31 <221> NAME/KEY: CDS 32 <222> LOCATION: (242)..(1417) 34 <400> SEQUENCE: 1 35 attocology eggycoages technical energences electrosit techaecest 6037 eggagtagag etgeacatge ggetgetees tgeteegtee egeeeageea etgtegegea 120 39 ggaacgggte octgoagoer chagongatg ghaggahagt agnogholyt hagaggthest 180 41 gaarggorga qqoagaogoa qoqqotooog qqootoaaga gaqtqqqtqt otooqgaqqo 240 43 c atg ago tac cog gag gta dag odo aga gau oto eta cet goa gea gog 289 44 Met Gly Tyr Pro Glu Val Glu Arg Arg Glu Leu Leu Pro Ala Ala Ala 5 10 17 cmg cgg gag cga ggg age mag ggm tge ggg tgt gge ggg ged ent gee 48 Pro Arg Gli Arg Gly Ser Gli Gly Cys Gly Cys Gly Gly Ala Pro Ala 49 20 25 30 51 cgq geg gge gaa ggg aan ago tgo otg oto the etg ggt the lift ggo 52 Arg Ala Gly Glu Gly Asn Ser Cys Leu Leu Phe Leu Gly Phe Phe Gly 53 - 45 - 45 55 etc tog etg gee etc cae etg etg aeg thy tye hyd tae eta gag thy 433 56 Leu Sor Leu Ala Leu His Leu Leu Thr Leu Cys Cys Tyr Leu Glu Leu 57 50 55 59 cgc reg gag tig egg egg gaa egi gga gee gag tee ege eil gge gge 481 60 Arg Ser Glu Leu Arg Arg Glu Arg Gly Ala Glu Ser Arg Leu Gly Gly 61 65 70 75 63 Log ago acc cot ago acc tot ago acc eta ago ago etc agt ago etc 64 Ser Gly Thr Pro Gly Thr Ser Gly Thr Leu Ser Ser Leu Gly Gly Leu 8.5 90 67 gar cet, gae age ecc ate acc agt eac ett gag eag eeg tea eet aug 577 68 Asp Pro Asp Ser Pro Ile Thr Ser His Leu Gly Cln Pro Ser Pro Lys 69 100 105 110 71 cag cag coa ttg gaa cog gga gaa gee gea etc cae tet gae tec cag 625

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/729,658

DAIE: 12/12/2000 PIME: 12:07:55

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Output Set: N:\CRF3\12122000\1729658.raw

72 Gin Gin Pro Leu Glu Pro Gly Glu Ala Ala Leu His Ser Asp Ser Glu 73 115 120 125	
75 gad ggg dad dag atg god ota tig dar tid ito tid oot gat gaa dag	673
76 Asp Gl; His Gla Wet Ala Leu Leu Ash Phe Phe Phe Pro Asp Glu Lys	
77 130 135 140	
79 oca tao tot gaa gaa gaa agt agg ont git ogo ogo aat ada aga ago	7.31
80 Pro Tyr Ser Glu Clu Glu Ser Ard Ard Val Ard Ard Ash Lvs Ard Ser	
81 145 150 155 160	76.0
83 and ago ant gan gga gon gut ggo con git and auc ang and ang gga	769
84 Lys Ser Ash Giu Gly Ala Asp Gty Pro Val Lys Ash Lys Lys Lys Giy	
0)	817
87 aug dad ged gga eet eet gga eer dat gge eet eed gga eee eed gga	017
88 Lys Lys Ala Gly Pro Pro Gly Pro Ash Gly Pro Pro Gly Pro Pro Gly 89 180 185 190	
89 180 185 190 -91 oct cea gga eee eag gga eee eea gga att eea ggg att eet gga att	865
92 Pro Pro Gly Pro Gln Gly Pro Pro Gly Tle Pro Gly Tle	000
93 195 200 205	
95 cea gga aca act gtt atg gga coa cot ggt cet cea ggt cet cet ggt	913
96 Pro Gly Thr Thr Val Met Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly	
97 210 215 220	
99 cet caa gga eee eet gge ete eag gga eet tet ggt get get gat aaa	961
100 Pro Gin Gly Pro Pro Gly Leu Gin Gly Pro Ser Gly Ala Ala Asp Lys	
101 225 230 235 240	
103 get gya act. cga gas ace eag ees get gtg gtg eat ets eag gge ess	1009
104 Ala Gly Thr Ard Glu Ash Gln Pro Ala Val Val His Leu Gln Gly Glo	
105 245 250 255	
107 ggg tea qua att caa gte aag aat gat ett tea ggt gga gtg ete aat	1057
108 Gly Ser Ala lie Gln Val Lys Asn Asp Leu Ser Gly Gly Val Leu Asn	
109 260 265 270	
. Ill gae tgg tot eye ate act atg aac eec aag gtg tit aag eta cat eec	1105
112 Asp Trp Ser Arg fle Thr Met Asn Pro Lys Val Phe Lys Leu His Pro	
113 275 280 285	
115 ege age ggg gag etg gag yta etg gtg gae gge ace tae tte afe tat	4.153
116 Arg Ser Gly Glu Leu Glu Val Leu Val Asp Gly Thr Tyr Phe 11e Tyr	
11.7 290 295 300	1201
119 agt eag gta gua gta tac tac atc aac tic act gac tit gec age tat	1201
120 Ser Gln Val Glu Val Tyr Tyr Ile Asn Phe Thr Asp Phe Ala Ser Tyr 121 305 310 315 320	
- 121 305 310 - 315 - 320 - 123 gaig glig gtig gat gaig dag doc the etg eag tige area ego age ate	1249
124 Glu Val Val Val Asp Glu Lys Pro Phe Leu Glu Cys Thr Arg Ser Ile	1240
125 325 330 335	
127 gag acq ggc aag acc aac tac uac act tgc tat acc gca ggc gtc tgc	1297
128 Glu Thr Gly Lys Thr Asn Tyr Asn Thr Cys Tyr Thr Ala Gly Val Cys	
129 340 345 350	
131 etc etc mag gee egg eag aag ale gee gte aag atg gtg eac get gae	1345
132 Leu Leu Lys Ala Arg Gln Lys Ile Ala Val Lys Met Val His Ala Asp	
133 355 360 365	
135 atc too atc aac atg age aag cac acc acg tto tit ggg ged atc agg	1393
- 136 The Ser lie Ash Met Ser Lys His Thr Thr Phe Phe Gly Ala fle Arg	

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DATE: 12/12/2000 TIME: 12:07:55

PATENT APPLICATION: US/09/729,658

Input Set : A:\55924.app
Output Set: N:\CRF3\12122000\1729658.raw

137 370 375	380
139 ong agt gaa god det goa too tag	attendedat Ettgedtetg tedglycccc 1447
140 Len Gl; Glu Ala Pro Ala Ser	
141 385 390	
	a aacotofaag tgotgotgig gagtgaggig 1507
	e cattettatt tallecceag tgactecagg 1567
147 gtgacaa	1574
150 210> SEQ 1D NO: 2	
151 <2.11> LENCTH: 39.1	
152 × 212> PYPE: PRT	
153 <213> ORGANISM: Homo sapions	
155 <400> SEQUENCE: 2	Arg Clu Lou Lou Uco Ala Ala Ala
- 156 Met Gly Tyr Pro Glu Val Glu Arg - 157 - 3	10 15
158 Pro Arg Glu Arg Gly Ser Gin Gly	
159 20	25 30
160 Arg Ala Gly Glu Gly Asn Ser Cys	
161 35 40	
162 Leu Ser Leu Ala Leu His Leu Leu	Thr Leu Cys Cys Tyr Leu Glu Leu
163 50 55	60
164 Arg Ser Glu Leu Arg Arg Glu Arg	Gly Ala Glu Ser Arg Leu Gly Gly
165 65 70	75 80
166 Ser Gly Thr Pro Gly Thr Ser Gly	
167 85	90 95
168 Asp Pro Asp Ser Pro Ile Thr Ser	
169 100	105 1.10
170 Gla Gla Pro Leu Glu Pro Gly Glu	
17.1 1.15	
172 Asp Gly His Gln Met Ala Leu Leu 173 130 135	140
174 Pro Tyr Ser Glu Glu Glu Ser Arg	
175 145 150 171 361 374 374 374 374 375	155 160
176 Lys Ser Asn Glu Gly Ala Asp Gly	
177 165	170 175
178 Lys Lys Ala Gly Pro Pro Gly Pro	Ash Gly Pro Pro Gly Pro Pro Gly
179 180	185 190
180 Pro Pro Gly Pro Glm Gly Pro Pro	Gly Tle Pro Gly fle Pro Gly Tle
181 195 200	205
182 Pro Gly Thr Thr Val Met Gly Pro	
183 210 215	220
184 Pro Gln Gly Pro Pro Gly Leu Gln	
185 225 230	235 240
186 Ala Gly Thr Arg Glu Asn Gln Pro	
187 245	250 255
- 188 Gly Ser Ala IIe Glu Val Lys Asn - 189 - 260	265 270
190 Asp Trp Ser Arg 1le Thr Met Asn	
191 275 280	
192 Arg Ser Gly Glu Leu Glu Val Leu	

DATE: 12/12/2000 TIME: 12:07:55

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PATENT APPLICATION: US/09/729,658

Input Set : A:\55924.app
output Set: N:\CRF3\12122000\1729658.raw

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1 ±4	Ser	Gln	val	Glu	Val	Tyr	T9 r	-11e	Asn	Phe	Thr	Asp	Phe	ALa	Ser	770	
195	305					3.1 ()					315					320	
196	Glu	Va]	Val	Val	ASP	GLu	Lys	Pro	Phe	1.eu	Gln	C78	Thr	Arg	ser	ile	
197					325					330		٠			335		
198	clu	Thu	G17	Lys	thr	Asn	171	Asn	Thr	CVS	ľyr	Thr	Ala	GTv	Val	Cvs	
199			•	140			•		345	-				350			
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214	<531)> FI	EATUI	RE:													
215	<22	l> N/	ME/I	CEY:	CDS												
21,6	422	2> Li	CAT	ION:	(14)	2)	(127)	5)									
218	<40)> SI	EQUE	ACE:	3												
-219	t.ca	jgaac	agg o	gtidd	etge	ag co	addo	ageq	g ato	ggeau	ggae	agta	igte	jee l	gtica	aggggt.	6.0
221	cgto	gaage	jac i	Lquq	geaga	ag gu	baga (jgeto	c cc	ggaga	agge	agad	ggete	acc (gage	chdaga	120
223	tagi	.ggt.t	lgt o	aleti	ggage	go o	atg	990	tac	cca	gaq	gta	gay	cyc	agq	gaa	171
224							Met	Gly	Ty r	Pro	Glu	Val	Glu	Arq	Arg	Glu	
225							l				5					1.0	
227	cee	eta	cet	geq	gea	aca	cca	aga	gag	caa	qqc	age	caq	gge	tac	aac	219
			PLO														
229					15					20					25		
231	trait	cac	ggg	acc		act	caa	aca	age		oga	aac	aure	tac	_	ctic	267
232			GLy														201
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241		6.0					6.5					70					
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24.5	75					80					85					90	
	-		cet.		-									-			459
	ser	ser	Pro	Gly		Leu	Asp	Pro	Val		pro	110	Thr	Arg	flis	Leu	
249					95					100					105		
251	agg	cāg	ceg	t.cc	ttt	caa	cag	cag	cct.	ttg	gaa	eeg	gga	gaa	gat	cca	507
252	Gly	Gln	Pro	ser	Phe	Gln	Gln	Gln	Pro	Leu	G1.u	Pro	Gly	Glu	Asp	Pro	
253				110					115					120			
255	ct.c	ccc	cet	gag	tee	cag	gad	cgg	cac	cag	atq	gaa	etc	ctg	aat	tta	555
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RAW SEQUENCE LISTING PATENT APPLICATION: US/09/729,658

DATE: 12/12/2000 FIME: 12:07:55

Input Set : A:\55924.app
Output Set: N:\CRF3\12122000\1729658.raw

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	140					145										
cac	CGC	aat	aag	aga	age	aaa	agt.	aqt	qaa	qqa	qca	gat	gyt	cet	gtt	651
Arg	Aig	Asn	Lys	Arq	ser	Lys	SOL	Gly	Clu		Ala	Asp	Gly	PTO	Vitl	
155					160											
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1.78	Asn	Lys	Lys	Lys	Cly	Lys	Lys	Ala		Pro	Pro	Gly	Pro	Ash	Gly	
				175												
ccc	CCa	gga	cct	cca	gga	cct	ccd	qqa	CCC	Cag	gga	act	ena	ddd	at.t.	747
Pro	Pro	G17	Pro	Pro	Gly	Ьtо	Pro		Pro	Gln	GI7	Pro	Pro	Gly	116	
cca	qqa	att.	cct	ddd	att	cca	qqa	aca	act	gt.t	atg	gga	cca	CCL	gge	795
Pro	GL_I	11e	51.0	Gly	He	bro		Thr	Thr	Val	Mert.		Pro	Pro	G1Y	
		205														0.10
cca	cct	440	cct	cat	ggt.	cct	caa	पपव	CCC	cct	dåc	C1.C	Cda	gga	CGT	843
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	220															001
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235																6.20
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va l	Phe		Leu	His	Pro	Arg		GLY	GLH	Leu	GLU	Val	туг	TYL	116	
									at a	a) a	art ar		/1.3.0°	3.57	ccc	1083
aac	ttc	act.	gac	titit.	gcc	agc	tac	gaq	quq	guq	91.9	yat	73.0	Lug	Dec	1,003
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313		1 - 1					trace	ote	010			aud	cat	aaa		1179
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	20.1.77		n t a		020	act	ano	ate		atic	aat	ato	age	aaq	cac	1227
- dcc	91.9	aaq	ally	gra	uac	712	Agn	Tla	San	110	Acn	Mert	Ser	LNS	His	
Ald	Val	Бүѕ		A CL T	nis	P.J.u	asp		1,7(31	110	112717	110.11	360	10,10		
2.20	200	110		61/37/1	000	ate	200		aac	gaa	acc	cet		ticc	tag	1275
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24 ft f	etae	cat	troca	toet	aa c	ccat		e ta	aece	agat-	t;t:a		cca	ggae	teceag	1335
220	ctat atat	uar.	taat	acta	ta t	ataa	aalo	с од а ал	tata	et.aa	cal	taca	acc	acaa	agagaa	1395
ala	acce	ato	claf	go eg Hal	10 C	ccau	taac	t de	agga	t.gae	aau	géa L	atq	Lgac	ticcca	1455
o Cy		ucy	CE C			20119	2940				- ,,	,				
	Phe eqc Arg 155 ada Lys cec Pro caa Pro tet 235 y Val Lea Ser gtg Val Lea Asn LLc Phe de Ala acc Thr att aacc	Phe Phe 140 cac cac cac cac cac cac gga Pro GLy cat ggt cat Val His cac acc fire Cys acc acc fire Cys cac cac cac cac cac cac cac cac cac ca	tte Ltt ect Phe Phe Pro 140 cqc eqc aat Arq Arg Asn 155 aaa aac aaq Lys Asn Lys ccc cca ega Pro Pro Gly 200 tct eqt ect Pro Pro Gly 220 tct eqt eqt Pro Pro Gly 220 tct Pro Pr	tto tit cot gat Phe Phe Pro Asp 140 coc coc aat aag Arg Arg Asn Lys 155 ada dad dad aaa Lys Asn Lys Lys coc coa gga cot Pro Gly Pro 205 coa gga att cot Pro Gly Pro 220 cot ggt gct gct Ser Gly Ala Ala Laa ggt gga gtg Ser Gly Gly Val Loa ggt gga gtg Ser Gly Gly Val Loa ggt gga gtg Ser Gly Gly Val Loa ggt gga gtg Ser Gly Gly Lat Val Phe Lys Leu 200 Lic ctg cad cta Asn Phe Thr Asp 300 Lic ctg cad tgc Phe Leu Gln Cys 315 315 315 315 316 427 428 438 441 441 441 441 441 441 441 441 441 44	ttc t.t. cct gat gaa Phe Phe Asp Glu 140 aag aag aga ccc ccc aag aag aga try Arg Asn bys Arg try Asn bys bys bys dad aad aag bys bys bys ccc cca gag cca cca cca aag aag aag aag pro pro <td< td=""><td>ttc ttt cct gat gaa aag Phe Phe Pro Asp Glu Lys 140 aaa aaa aga aga 140 aaa aaa aga aga ccc cce aaa aaa agg Lys Asn Lys Lys Gly Lys Asn Lys Lys Gly Ccc cca qga cct cca gga Pro Gly Pro Pro Gly Ite Cca qga att cct qga att Pro Gly Pro Pro Gly Ite Cca cdt qgt cct cct ggt Pro Gly Pro Pro Gly Lys 2ca cdt qgt qgt qgt ca cat pro Pro Gly Ite</td><td> The little cot State Sta</td><td> The life Pro Asp Glu Lys Ala Pyr 140 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 </td><td> The</td><td> The lite Cet gat gaa aug gaa tut tet gaa lite lit</td><td> The Phe Phe</td><td> The continue of the continue</td><td> The continue of the continue</td><td> The life city of the</td><td> The life cit got got got got got got got got got go</td><td> The Ltt Cet gat gaa aag gaa tut tet gaa gag gab agt agt agt gat gat left left</td></td<>	ttc ttt cct gat gaa aag Phe Phe Pro Asp Glu Lys 140 aaa aaa aga aga 140 aaa aaa aga aga ccc cce aaa aaa agg Lys Asn Lys Lys Gly Lys Asn Lys Lys Gly Ccc cca qga cct cca gga Pro Gly Pro Pro Gly Ite Cca qga att cct qga att Pro Gly Pro Pro Gly Ite Cca cdt qgt cct cct ggt Pro Gly Pro Pro Gly Lys 2ca cdt qgt qgt qgt ca cat pro Pro Gly Ite	The little cot State Sta	The life Pro Asp Glu Lys Ala Pyr 140 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145 145	The	The lite Cet gat gaa aug gaa tut tet gaa lite lit	The Phe Phe	The continue of the continue	The continue of the continue	The life city of the	The life cit got got got got got got got got got go	The Ltt Cet gat gaa aag gaa tut tet gaa gag gab agt agt agt gat gat left left

09/129658 6

<210> 5 <211> 630 <212> DNA <213> Homo sapiens <400> 5 Jen 10 on Evan Jumay Sheet acagtggggg ggaagatggg ctcagggttt agacacatca aacttaaggt acaggtagac 60 tgtdntatgg aaagatggtt ttttatgttg gctatgactg agtggggtca acctttgact 120 gatgtacttg taatttttac agatggccct attgaatttc ttcttccctg atgaaaagcc 180 atactctgaa gaagaaagta ggcgtgttcg ccgcaataaa agaagcaaaa gcaatgaagg 240 agcagatggt aagtctactc agttgatcct ttatcacttc tgaattattt gttagtaaaa 300 gtatcctttt aagaactacc ttcttggtag ggcatggtgg ctcacgcctg taatcctagc 360 aacatggtga aaccctgtct ctactaaaaa tacaaaaaaa attagccggg cctagtccca 480 gctgcttggg agactaaggc aggagaatcg cttgaaactg ggaggtagag gttgcagtga 540 gctgagactg tgccactgca ctccagcctg ggtgacagtg cgagactcca tctcaaaaaa 600 630 caaaaacaaa caaaaaaaaa cactaccttt

FYI!

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/729,658

DATE: 12/12/2000 TIME: 12:07:56

Input Set : A:\55924.app
Output Set: N:\CRF3\12122000\1729658.raw

L:2763 M.341 W: (46)	"n" or "Xaa"	used, for SEQ	10#:101
L:2754 M:341 W: (45)	"n" Or "Xaā"	used. for SEQ	101: #(11 (
L. 2765 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	10:.101
L:2766 M:311 W: (46)	"n" or "Xaa"	used, for StC	104:101
L:2767 N:341 W: (46)	"n" or "Xaa"	used, for SLC	Dr:101
L:2768 N:341 W: (16)	"h" or "Xaa"	used, for SEC	104:101
L:2769 H:341 K: (46)	"n" of "Xaa"	used, for SLC	10::101
L:2770 M:341 W: (46)	"n" or "Xaa"	used, for SEC	(Da:101
L:2775 M:341 W: (46)	"n" or "Xaa"	used, for SiQ	10#:101
L:2803 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	10#:103
L:2804 M:341 W: (46)	"h" or "Xaa"	used, for SEQ	1D#:103
L:2836 M:341 W: (46)	"n" or "Xaa"	used, for SFQ	1D#:105
L:2837 N:341 W: (46)	"n" or "Xaa"	used, for SEC	1D#::105
L:2838 М:341 W: (46)	"n" or "Xaa"	used, for SFQ	TD#:105
L.2839 M:311 W: (46)	"n" or "Xaa"	used, for SEQ	110#:105
L:2840 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	ID#:105
L:2841 H:341 W: (46)	"n" or "Xaa"	used, for SEC	LD#:105
L:2892 M:341 W: (46)	"n" or "Xaa"	used, for SEC	1D#:109
L:2918 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	TD#:111
L:2924 M:341 W: (46)	"n" or "Xaa"	used, for SDC	1D#:111
L:2925 M:341 W: (46)	"n" or "Xaa"	used, for SEC	(D#:111
L:2926 M:341 W: (46)	"n" or "Xaa"	used, for SEC	104:111
L:2927 M:341 W: (46)	"n" or "Xaa"	used, for SEC	JD#:111
L:2928 M:341 W: (46)	"n" or "Xaa"	used, tor SEC	10#:111
L:2929 M:341 W: (46)	"n" or "Xaa"	used, for SEC	10#:111
L:2950 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	LD#:112
L:2969 M:341 W: (16)	"n" or "Xaa"	used, for SEQ	110#:113
L:2993 H:34T W: (46)	"h" or "Xaa"	used, for SLO	JD#:115
L:2994 M:341 W: (46)	"u" or "Xaa"	used, for SEQ	JD#:115
L:2995 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	1D#:115
L:2996 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	
L:3020 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	ID#:116
L:3022 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	
L:3023 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	
L:3047 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	
L:3056 H:341 W: (46)	"n" or "Xaa"	used, for SEQ	
L:3057 M:341 W: (46)	"n" or "Xaa"	used, for SEQ	LD#:116

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/729,658

DATE: 12/12/2000 FIME: 12:07:56

Imput Set : A:\55924.app

Output Set: N:\CRF3\12122000\1729658.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number L:10 M:271 C: Current Filling Date differs, Replaced Current Filling Date 1:398 M:258 W: Mandatory Feature missing, 220> not found for SFQ 1D#:5 L:398 M:258 W: Mandatory Feature missing, 221> not found for SEQ 1D#:5 L:398 M:258 W: Mandatory Feature missing, 222> not found for SEQ 1D#:5 L:398 M:258 W: Mandator/ Feature missing, $\sim 223 >$ not found for SEO 1D#:5 £:398 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ 1D4:5h:493 M:258 W: Mandatory Feature missing. 220> not found for SEO ID#:9 L:493 M:258 W: Mandatory Feature missing. 221> not found for SEO ID#:9 L:493 M:258 W: Mandatory Feature missing. <222> not found for SEO ID#:9 1:493 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:9 L:493 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID4:9 L:534 M:258 W: Mandatory Feature missing, $\sim\!220\!>$ not found for SEO ID4:11 4:534 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:11 L:534 M:258 W: Mandatory Feature missing, <222> not found for SEQ 4D#:11 L:534 M:258 W: Mandatory Feature missing, <223> not found for SEO ID#:11 L:534 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ 1D#:11 1:722 M:258 W: Mandatory Feature missing, <223> not found for SEQ fD#:12 L:722 M:340 W: (46) "n" or "Xaa" used: Feafure required, for SEQ ID*:12b:736 M:258 W: Mandatory Feature missing, +223> not found for SEO ID#:12 M:340 Repeated in SegNo:12 L:744 M:258 W: Mandatory Feature missing, <223> not found for SEO TD#:12 L:1930 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:43 L:1930 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:43 L:1930 M:340 W: (46) "h" or "Xaa" used: Feature required, for SEG 1D#:43 $T_{\rm c}:2657$ M:258 W: Mandatory Feature missing, <220> not found for SEQ 1D#:95 L:2657 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:95 L:2657 M:258 W: Mandatory Feature missing, <222> not found for SEO ID::95 L:2657~M:258~W: Mandatory Peature missing, <223> not found for SEQ LD#:95 L:2657 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ 1D#:95 L:2658 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:95 L:2658 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:95 L:2658 M:258 W: Mandatory Feature missing, <222> not found for SEQ IDA:95 6:2658 M:258 W: Mandatory Feature missing, <223> not found for SEQ (D#:95) M:340 Repeated in SeqNo-95 L:2659 M:258 W: Mandatory Peature missing, <220> not found for SEQ ID#:95 L:2659 M:258 W: Mandatory Feature missing. <221> not found for SEQ ID::95 1.:2659 M:258 W: Mandatory Feature missing, $\sim222>$ not found for SFQ ID#:95 L:2659 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:95 1:2662 M:258 W: Mandatory Peature missing, <220> not found for SEQ ID#:95 L:2662 M:258 W: Mandatory Feature missing, \sim 221> not found for SEO LD#:95 L:2662 M:258 W: Mandatory Feature missing, \sim 222> not found for SEO LD#:95 L:2662 M:258 W: Mandatory Feature missing, <223> not found for SEQ 1D#:95h:2693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 L:2694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 L:2695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 L:2761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 L:2762 M:341 W: (46) "n" or "Naa" used, for SEQ TD#:101